attachment to PTOL-413 (do NOT detach)

IN THE CLAIMS: Proposal – 6/12/06

1. (Currently Amended) A method for processing a specimen using a plasma, comprising:

generating a plasma in a processing chamber in which the specimen is disposed; and

processing the specimen with the plasma generated in the processing chamber, wherein

the processing of the specimen comprises:

an irradiation operation for projecting and scanning a light beam into the processing chamber through an observation window of the processing chamber;

a detection operation for detecting a light of the projected light beam which is reflected from an inside wall of the processing chamber, the light being detected by separating a light component from light emanated from the plasma and light reflected from the inside wall by use of a spectroscope; and

a signal processing operation for obtaining information on a state of contamination of the inside wall of the processing chamber, by processing a signal obtained at the detection operation by referring to a database storing predetermined relationships between ~~a signal~~ signals obtained from said detection of light from said inside wall and ~~a state~~ states of contamination of said inside wall.

2. (Previously Presented) A method for processing a specimen using a plasma according to Claim 1, comprising